

## Finding and fixing errors

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It is common to find situations where errors are displayed. Even with all the tools available in Calc to help you to enter formulas, making mistakes is easy. Many people find inputting numbers difficult and many may make a mistake about the kind of entry that a function's argument needs. In addition to correcting errors, you may want to find the cells used in a formula to change their values or to check the answer.

Calc provides three tools for investigating formulas and the cells that they reference: error messages, color coding for input, and the Detective.

### Error messages

The most basic tool is error messages. Error messages display in a formula's cell, on the Status Bar, or in the Function Wizard instead of the result.

An error message for a formula is usually a three-digit number from 501 to 540, or sometimes an unhelpful piece of text such as #NAME?, #REF!, or #VALUE!. The error message appears in the cell, and a brief explanation of the error is shown on the right side of the Status bar.

Most error messages indicate a problem with how the formula was input, although several indicate that you have run up against a limitation of either Calc or its current settings.

Error messages are not user-friendly, and may intimidate new users. However, they are valuable clues to correcting mistakes. You can find detailed explanations of them in Appendix B, Error Codes, and in the Help, by searching for "error codes" in Calc. A few of the most common are shown in Table 13.

Table 13: Common error messages

Code	Meaning
#NAME?	Instead of displaying Err:525. No valid reference exists for the argument.
#REF!	Instead of displaying Err:524. The column, row, or sheet for the referenced cell is missing.
#VALUE!	Instead of displaying Err:519. The value for one of the arguments is not the type that the argument requires. The value may be entered incorrectly; for example, double-quotation marks may be missing around the value. At other times, a cell or range used may have the wrong format, such as text instead of numbers.
#DIV/0!	Instead of displaying Err:532. Division by zero.
#NUM!	Instead of displaying Err:503. A calculation results in an overflow of the defined value range.
509	An operator such as an equals sign is missing from the formula.
510	A variable is missing from the formula.

### Examples of common errors

#### #DIV/0! division by zero

This error is the result of dividing a number by either the number zero (0) or a blank cell. There is an easy way to avoid this type of problem. When you have a zero or blank cell displayed, use a conditional function. Figure 238 depicts division of column B by column C yielding 2 errors arising from a zero and a blank cell showing in column C.